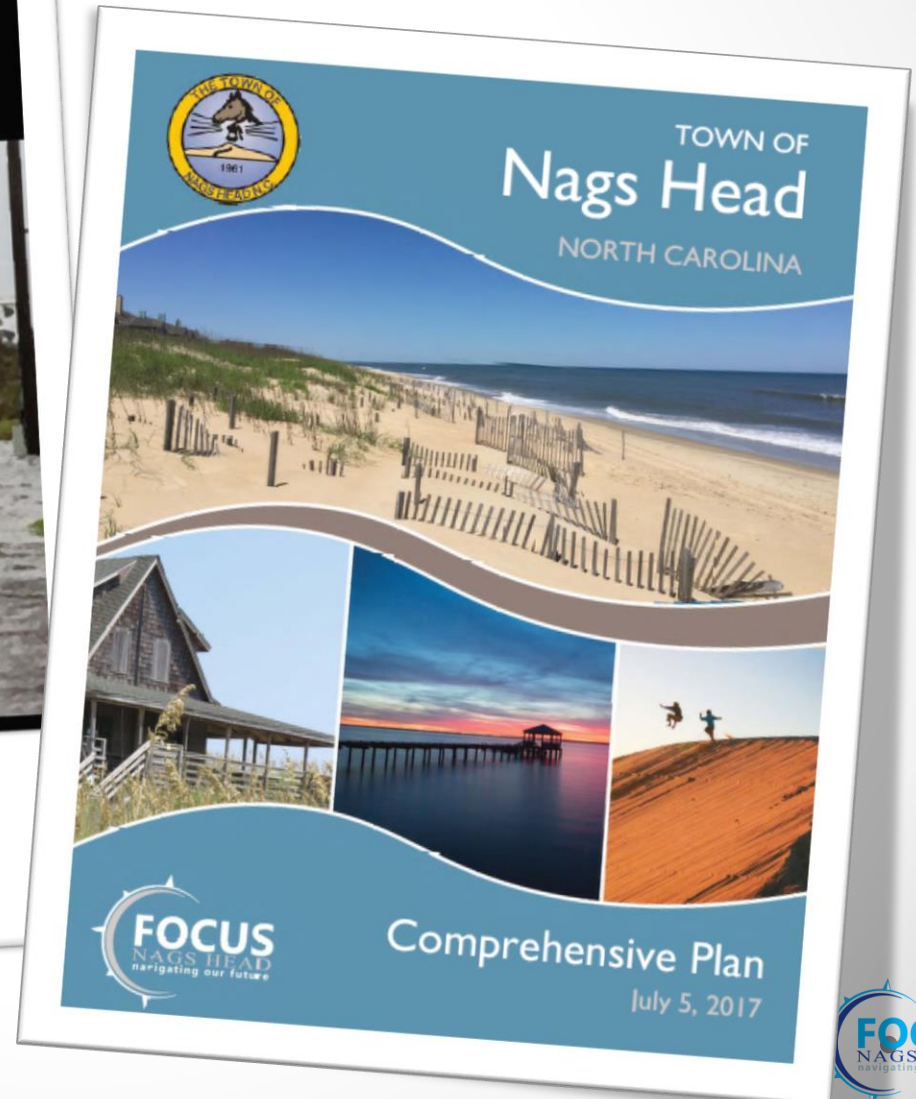
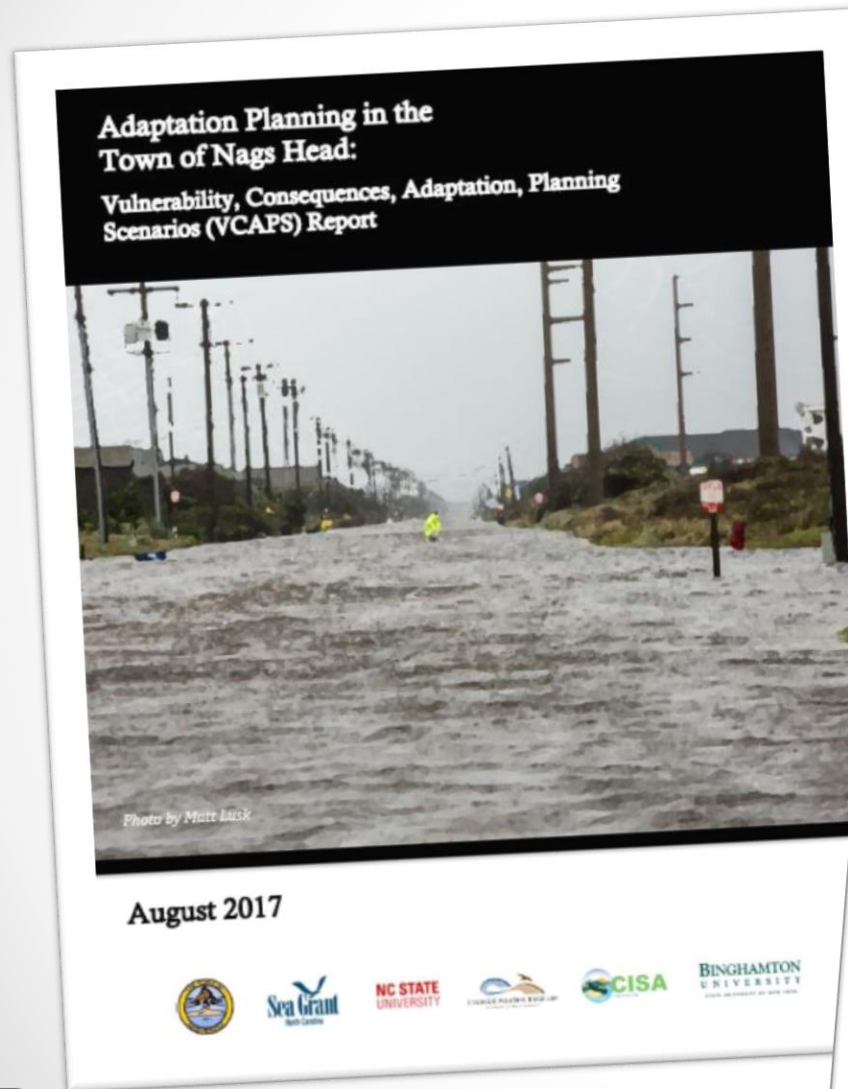




Nags Head- A Local Perspective

May 2, 2019

Long Range Planning



Why Plan?

Adaptation- bounce back

Taking **action** to **manage** or **reduce** the **adverse consequences** to _____.

Resiliency- the capacity to recover quickly

Take action = Recovering quickly





S. Nags Head- 1980





Hurricane Matthew ~ 2011





Adaptation is part of the
culture of communities
vulnerable to hazards...

We've been here, we are
here, we will always be here...

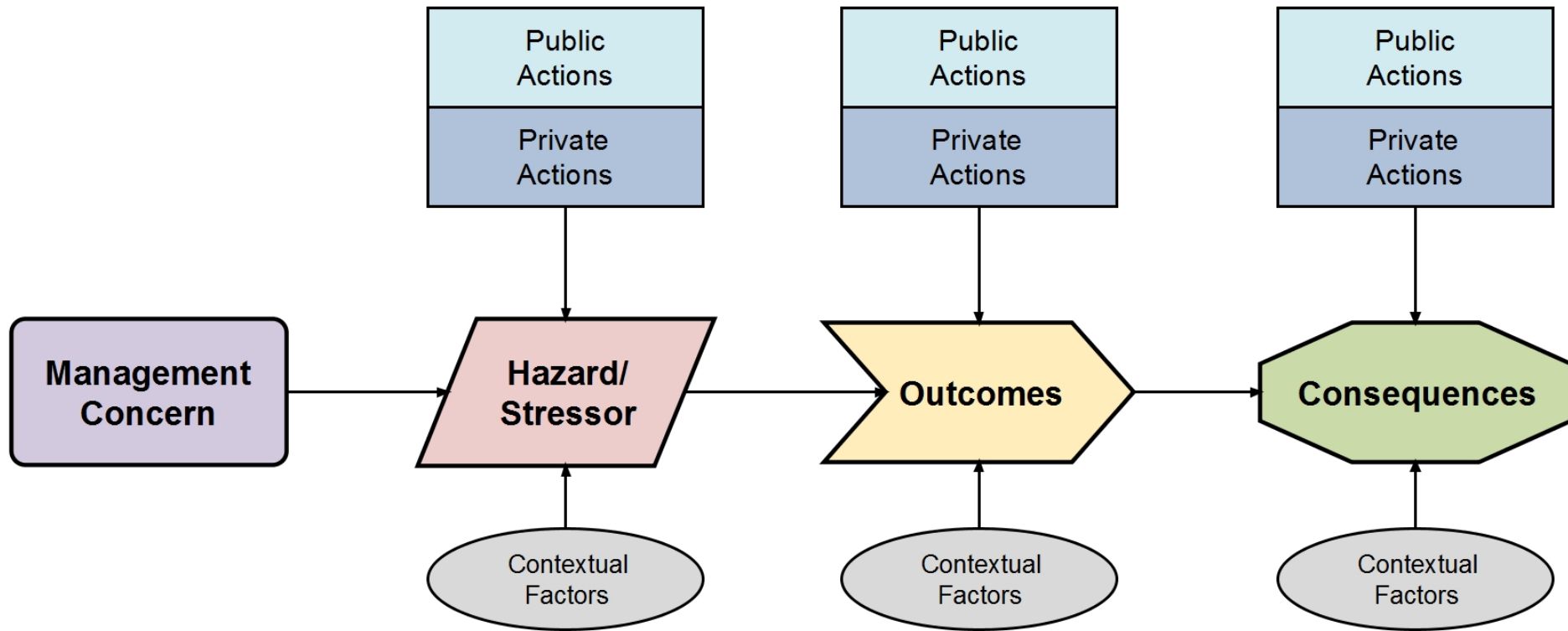


Long Range Planning

| | |
|---|--|
| <p>VCAPS Project (Vulnerability, Consequences, Adaptation, Planning, Scenarios)</p> | <p>Sea level rise, other coastal hazards, & adaptation strategies</p> <p>Community & stakeholder driven process, identified vulnerabilities, explore adaptation options, & assess community knowledge</p> |
| <p>FOCUS Comprehensive Plan</p> | <p>Policy issues- land use, environmental, transportation, economic development, municipal services</p> <p>Establishes vision, strategic, action oriented, policy document rooted in community & stakeholder input</p> |



VCAPS Diagrams: Building Blocks



Long Range Planning

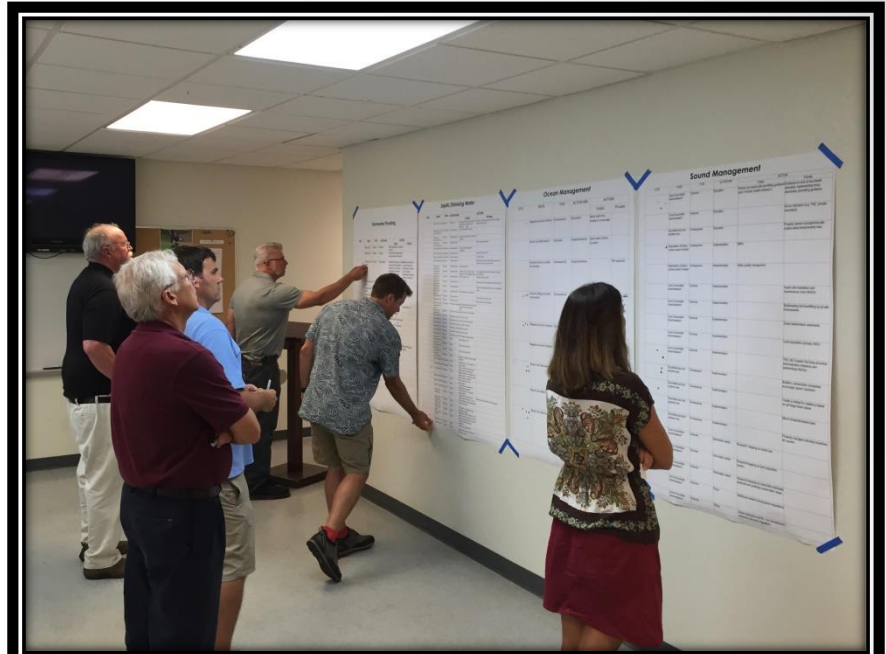
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Outcomes

Actions fit into major categories:

1. Ocean shoreline management
2. Estuarine shoreline management
3. Stormwater management
4. Water (ground/surface) management



Resiliency

Stormwater

Wastewater

Infrastructure

Transportation

Parks/Recreation

Planning

Actions

1. Maintain and expand the Septic Health Initiative.
2. Develop a comprehensive education and outreach plan on sea level rise and other hazards.
3. Develop an estuarine shoreline management plan
4. Develop a plan for sea level rise that includes a suite of sea level rise scenarios/probability distributions.
5. Develop a long term shoreline management plan.
6. Develop a long range plan for stormwater.
7. Promote and install living shorelines.



Policy

NR-15 Foster partnerships with universities and non-profits to assist the town in identifying risks and making sound scientific based decisions that increase the town's resiliency.

NR-15a: Continue to partner with NC Sea Grant to finalize the VCAPS process and study on Sea Level Rise and Climate Adaptation.

NR-15b: Seek additional partners to assist the town in carrying out the actions of the VCAPS study including the scenario based vulnerability analysis.



Policy

NR-16 Minimize impacts of future sea level rise.

NR-16a: Conduct a vulnerability analysis to determine the town's risk to hazards including sea level rise. This analysis should include future sea level rise scenarios.

NR-16b: Research and map estuarine marsh migration along Roanoke Sound.

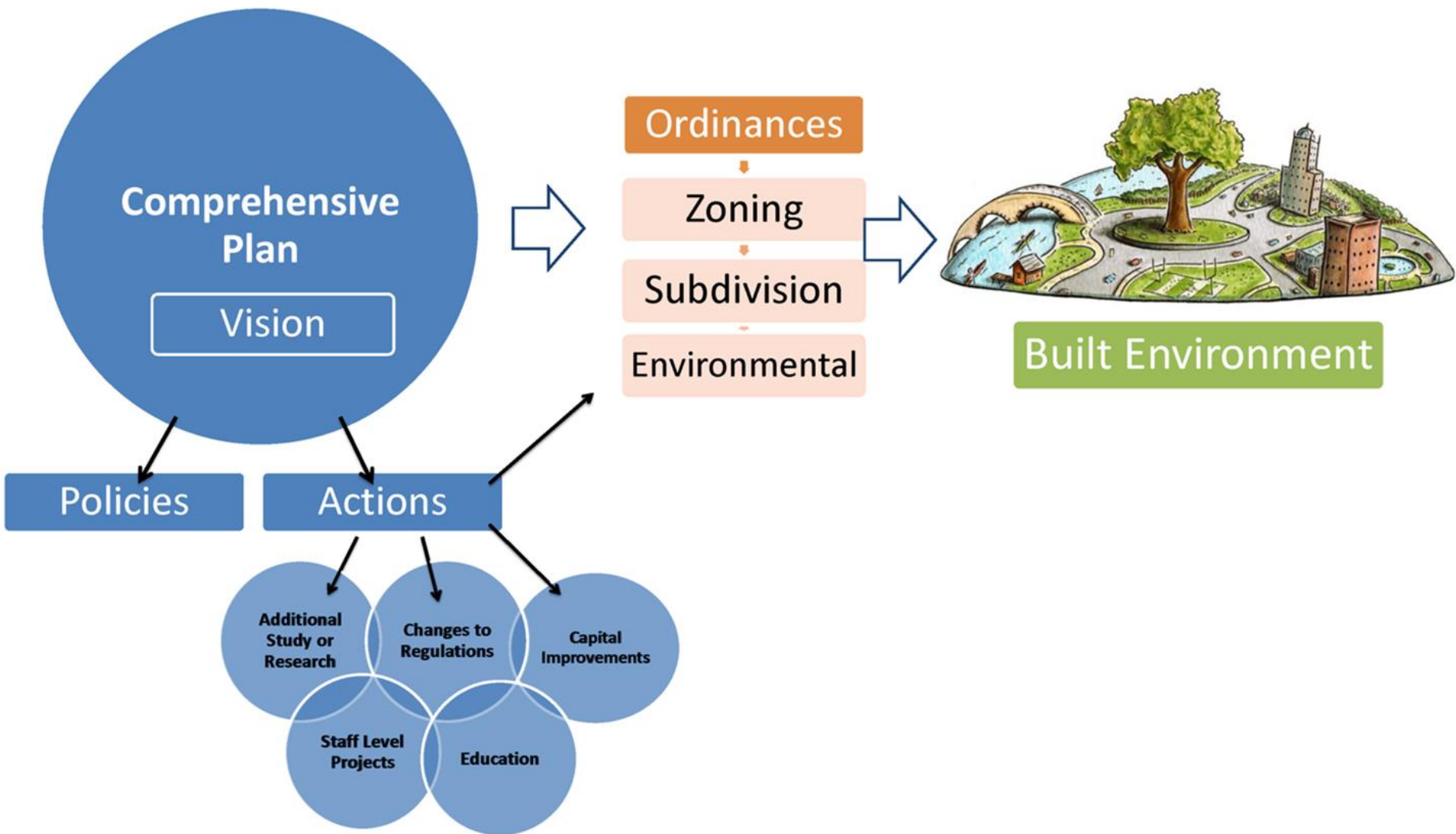
NR-16c: Develop a plan for adaptation that includes a suite of SLR scenario/probability distributions (more up-to-date than CRC).

NR-16d: Develop a comprehensive education and outreach program for K-12 and residents/property owners that includes the follow topics: SLR, storms, sound side & oceanfront erosion, beach nourishment, and CRS.

NR-16e: Maintain and expand the Septic Health Initiative by providing government assistance for septic retrofits, assisting homeowners in maintaining their septic systems, conducting more groundwater sampling, securing additional wells for sampling, developing partnerships to assist with the peer review of existing data, transitioning to a mandatory septic inspection program with incentives, and mapping of groundwater.

NR-16f: Develop an estuarine shoreline management plan that establishes policies, procedures, and an overall management strategy for the town's estuarine shoreline. This plan will work to develop projects and strategies to prevent estuarine flooding in the future. The plan should research, identify and map marsh loss, "soft" stabilization methods that are appropriate for Nags Head's estuarine shoreline, potential opportunities for land acquisition, and potentially restorable wetlands. Additionally, it should develop incentives that can be utilized for the protection of natural shorelines.





Challenges

- Many county, state, federal regulations
- Maintaining water quality
- Maintaining community character and quality of life
- Identifying tipping points
 - Septic system function vs water quality
 - Erosion and real estate market
- How will the Town fund adaptation?
 - Maintenance
 - Cross-scale collaboration to apply for funding
- What about issues not within the Town's jurisdiction?



Keys to Success

1. Community engagement and support of elected officials is paramount.
2. Establish vision and action steps
3. Partnerships are PARAMOUNT- both in planning and implementation!
4. Start where you are-
 - Build on existing processes & plans.
 - Add the extra layer/lens of sea level rise.



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